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The American University's



CENTER FOR TECHNOLOGY
AND
ADMINISTRATION



THE INSTITUTE ON
SYSTEMS
SCIENCE

May 9-12, 1966

at

Twin Bridges Marriott Motor Hotel
Washington, D. C.

THE AMERICAN UNIVERSITY INVITES YOU

INSTITUTE ON SYSTEMS SCIENCE

May 9-12, 1966

Theme: Systems Science, A Tool For The Modern Man

Director of Institutes and Special Programs

Ralph I. Cole

TENTATIVE PROGRAM

MONDAY—9 MAY, 1966

9:30 A.M.—10:30 A.M.—REGISTRATION

10:30 A.M.—OPENING OF THE INSTITUTE

SESSION I—KEYNOTE ADDRESS

"Systems Science, A Tool for Modern Civilization"

The Honorable Weston E. Vivian, Ph.D., United States
Representative, The State of Michigan

12:00 NOON—LUNCHEON

1:30 P.M.—5:00 P.M.—SESSION II—LIMITATIONS OF PAST
SYSTEMS PLANNING

System planning and design up until the late 1950's was considered more of an art rather than a science. Systems were conceived and implemented on more of an artistic (intuitive) rather than a scientific (an orderly arrangement of factual knowledge) method. This period will be devoted to examining this art of designing systems during the period of from approximately 1945-1960. Speakers will address their presentation to the kind of planning that was common for several typical small and large scale systems, and in many instances will point out the deficiencies of this intuitive rather than logical thinking. They will trace the construction and operation of the resultant systems. Communication and management information systems will be examined.

Speakers:

Mr. William J. Sen, Technical Director, Advanced
Planning, Electronic Systems Div., U. S. Air Force

Mr. Volney Taylor, Management Analyst, United
States Treasury Department

TUESDAY—10 MAY, 1966

9:00 A.M.—11:30 A.M.—SESSION III—PROVEN TECHNIQUES OF SYSTEM DESIGN

This session will cover the trade-off techniques inherent in all system design functions, delving deeply into the various means for trading cost against performance. Sub-system against total system performance, as well as long term trade-offs between operating, maintenance and logistics costs against initial system cost will be explored.

Speakers:

Dr. Jack Minker, Manager, Auerbach System Center, Auerbach Corporation

Mr. Mones E. Hawley, General Manager, Systems, Economic Division, Planning Research Corporation

11:30 A.M.—2:00 P.M.—LUNCHEON SPEAKER

"Simulated Cerebration"

Professor Paul W. Howerton, Director, Center for Technology and Administration

2:00 P.M.—5:00 P.M.—SESSION IV—ADVANCED TECHNIQUES OF SYSTEMS SCIENCE

A panel discussion exploring the latest techniques of system design. System modeling techniques will be discussed as well as the requirements for computing machinery subsequently used for optimizing system parameters on the basis of the evolved model. This session will also delve into how a system, derived from the analytical model, can be simulated on a computer. System analysis to derive optimum system parameters as well as operational analysis optimum operating procedures will be discussed. Cost Effectiveness and PERT (as modified) will be presented.

Speakers:

Dr. Albert E. Babbitt, Jr., Manager, Engineering Analysis, IBM Federal Systems Division

Mr. A. William Buschman, Office of Assistant Secretary of Defense, Installation and Logistics

Mr. Harvey D. Kushner, Executive Vice-President, Operations Research, Incorporated

ADMINISTRATION

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Institute Program Director
Gerald C. Schutz

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WEDNESDAY—11 MAY, 1966

9:00 A.M.-11:30 A.M.—SESSION V — CASE HISTORY STUDIES OF EVOLVING SYSTEMS

A study will be conducted concerning the application of modern system planning and design techniques to large sophisticated systems that are in existence or in the process of being designed or implemented. There will be discussions of marine transportation systems, satellite communication systems, total corporate asset control systems and management information systems as applied to electric power utility systems.

Speakers:

Mr. Peter G. Fielding, Vice President, Booz-Allen Applied Research, Inc.

Mr. Louis B. Early, Head, Economic Analysis Department, Communication Satellite Corporation

11:30 A.M.-2:00 P.M.—LUNCHEON SPEAKER

Edmund D. Dwyer, Director, Data Processing Coordination, General Services Administration

2:00 P.M.-5:00 P.M.—SESSION V (continued)

Mr. H. W. Anderson, Operations Research and Development Department, United Airlines

Mr. Clarence J. Baldwin, Manager, Advanced Development Section, Electric Utilities Headquarters Engineering, Westinghouse Electric Corporation

THURSDAY—12 MAY, 1966

9:00 A.M.-12 NOON—SESSION VI — PREDICTED APPLICATIONS OF SYSTEMS SCIENCE

This session will be utilized for discussing the future applications for systems science techniques. Possibilities for applying system analysis to the fields of agriculture, research and development programs, and manpower information will be explored.

Speakers:

Mr. David Savidge, Technical Assistant to the Vice President, Univac Division, Sperry Rand Corp.

Dr. Glen E. Vanden Berg, Assistant to the Director, Agricultural Engineering Research Division, U. S. Department of Agriculture

12 NOON—LUNCHEON

1:30 P.M.-2:45 P.M.—SESSION VI (continued)

Mr. Augustus C. Johnson, Booz-Allen Applied Research, Inc.

3:00 P.M.—CRITIQUE

Mr. G. C. Schutz, Institute Program Director

Mr. Ralph I. Cole, Director, Institutes and Special Programs

Purpose

Today's executives and managers are constantly examining existing systems within their own organization to determine whether these systems are carrying out their assigned function in an expeditious and efficient manner. They are frequently asked to pass judgment on the initiation and implementation of new systems that are either to be installed or utilized by their respective organizations.

The purpose of this institute is two fold. First, it will provide the participant with background information that is necessary to thoroughly evaluate existing systems as to their adequacy. Second, it will supply a tool for properly evaluating proposed systems that are meant to replace existing ones that have become outdated, or to establish new systems for carrying out additional functions. The Institute will stress decision making in system planning, including the use of computers for this purpose, and will be of particular interest to those involved in administrative as well as operational responsibilities. Audience participation in the familiarization of advanced techniques is planned. All sessions have been organized with authoritative speakers both in system concept and computer implementation.

Corporate officials and staff planners as well as government agency planning staff will find this Institute very stimulating and conducive to further individual investigations.

LOCATION AND SCHEDULE

This institute will be held at the Twin Bridges Marriott Motor Hotel, Washington, D. C. If driving, there is parking space free of charge; if arriving at National Airport, free transportation to the Marriott Hotel is available upon request to that hotel. The daily Institute schedule will be from 9:00 a.m. to 5:00 p.m.

SPONSORSHIP

This Institute is sponsored by the Center for Technology and Administration, The American University.

FOR FURTHER INFORMATION

Write Paul W. Howerton, Director, Center for Technology and Administration, The American University, 2000 G Street, N.W., Washington, D. C. 20006—or telephone 783-4940 (area code —202).

COST

The tuition fee is \$175.00. This includes luncheon each day and background materials.

ENROLLMENT

Please execute the attached enrollment form. Payment of the above mentioned fee or a statement of official approval covering tuition payment must be received before registration can be assured.

REGISTRATION

Advance enrollment is requested. Registration will take place on May 9, 1966, from 9:30 a.m. to 10:30 a.m. at the Twin Bridges Marriott Motor Hotel, Washington, D. C.

ADVISORY BOARD

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APPLICATION FOR ENROLLMENT

Paul W. Howerton, Director, Center for Technology and Administration
The American University • 2000 G Street, N.W. • Washington, D. C. 20006

I wish to enroll in the Institute on Systems Science to be held at Twin Bridges Marriott Motor Hotel, Washington, D. C., from May 9 through May 12, 1966.

NAME _____

ADDRESS _____

BUSINESS ADDRESS _____

APPLICANT'S POSITION _____

Tuition or statement of official approval for attendance must be received before enrollment can be assured. (Applications subject to approval by The American University. If disapproved, tuition will be refunded.) Checks should be made payable to The American University. The University reserves the right to withdraw the Institute if in its opinion the enrollment is insufficient to justify the program.